INDEX

DOKLADY BIOPHYSICS

Volumes 160-165, 1965

DOKLADY BIOPHYSICS Volumes 160-165, 1965

(A translation of Doklady Akademii Nauk SSSR)

A

Agaverdiev, A. Sh. - 137 Aleksandrov, I. D. - 167 Anichin, V. F. - 156 Antipov, V. V. - 70 Arshavskii, Yu. I. - 140

В

Barakina, N. F. - 197
Barsukov, V. S. - 19
Belavtseva, E. M. - 112
Berkinblit, M. B. - 119, 140
Bobrovich, V. P. - 205
Bogatyrev, A. V. - 23
Braginskaya, F. I. - 109
Burlakova, E. V. - 21, 179
Bychkovskaya, I. B. - 4, 23

C

Chailakhyan, L. M. - 119, 140 Chernitskii, E. A. - 205 Chistyakova, T. I. - 37 Chou Yung-tseng - 131 Chukhrova, A. I. - 103 Chumakov, V. M. - 39, 182

D

Dechev, G. - 57, 63, 67 Dolgo-Saburov, V. B. - 189 Doskoch, Ya. E. - 137

E

Éidus, L. Kh. - 185 Él'piner, I. E. - 109 Émanuel', N. M. - 179 Evstigneev, V. B. - 149

F

Fedorovich, I. B. - 92 Fedoseev, V. M. - 60 Feigin, L. A. - 49 Filev, K. A. - 1 Fishman, S. N. - 15

C

Gaintseva, V. D. - 179 Genter, E. I. - 208 Gindin, L. G. - 163 Graevskii, É. Ya. - 171, 177 Gubareva, A. V. - 125 Gulyaev, B. A. - 88

I

Ismailova, S. Kh. - 21

K

Kalmanson, A. É. - 39, 182 Karapetyan, S. K. - 123 Kayushin, L. P. - 115 Kharitonenkov, I. G. - 39 Khazanov, V.S. - 106 Khrapova, N. G. - 179 Khvostova, V. V. - 46 Kitaigorodskii, A. I. - 112 Konev, S. V. - 205 Konoplyannikov, A. G. - 53, 60 Konstantinova, M. M. - 171 Kovalev, S. A. - 119, 140 Kozlov, Yu. P. - 21, 131 Krasnovskii, A. A. - 115 Kriger, Yu. A. - 7, 152 Kriviskii, A. S. - 26 Kruglyakova, K. E. - 163 Kudryashov, Yu. B. - 53 Kuzin, A. M. - 191, 201

L

Lazarev, A. I. - 33 Litvin, F. F. - 88 Logvinova, O. F. - 103 Lukash, N. I. - 79, 125 Lyapidevskii, V. K. - 99

M

Malinovskii, O. V. - 19 Minaev, P. F. - 103 Mironova, A. P. - 103 Mityushova, N. M. - 19 Mokul'skaya, T. D. - 128 Mokul'skii, M. A. - 128 Morozov, V. S. - 70 Moskona, A. - 57, 63, 67 Murin, G. F. - 70

N

Narbaev, N. - 191 Nekrasova, I. V. - 82, 177 Neverova, L. G. - 43 Nevorotin, A. I. - 143 Nevzgodina, L. V. - 46 Nuzhdin, N. I. - 1

0

Ochinskaya, G. K. - 4 Ostrovskii, M. A. - 92 Otarova, G. K. - 185

P

Pankova, N. V. - 146
Paribok, V. P. - 208
Pinegin, N. I. - 33
Poglazov, B. F. - 112
Prokof'eva-Bel'govskaya, A. A. - 146
Putseiko, E. K. - 211

R

Rass, I. T. - 34 Razgovorov, B. L. - 70 Rikhireva, G. T. - 115

S

Saksonov, P. P. - 70
Sapezhinskii, I. I. - 73
Savich, A. P. - 84
Savkina, I. G. - 149
Shashkov, V. S. - 70
Shebaldina, A. D. - 109
Shimanovskaya, K. B. - 125
Shuleikin, V. V. - 133

T

Tambiev, A. Kh. - 152 Tarasenko, A. G. - 171, 177 Γarusov, B. N. - 131, 137 Telitchenko, M. M. - 37 Trotsenko, V. L. - 39, 182

U

Ulanov, B. P. - 163 Umrikhina, A. V. - 115 Urtilé, S. - 131

V

Vainshtein, B. K. - 49 Vainson, A. A. - 201 Val'shterm, E. A. - 30 Vardanyan, V. A. - 123 Vazina, A. A. - 112 Vol'kenshtein, M. V. - 15 Volkov, N. G. - 99 Vorobtsova, I. E. - 11

Y

Yanushevskaya, M. I. - 175, 197 Yarmonenko, S. P. - 53, 60

\mathbf{z}

Zakirov, L. A. - 152 Zavil'gel'skii, G. B. - 84 Zhil'tsova, V. M. - 163 Zotikov, A. A. - 76 DOKLADY AKADEMII
NAUK SSSR

EDITORIAL BOARD
L. A. Artsimovich
A. N. Frumkin
(Assistant Editor)
B. A. Kazanskii
A. N. Kolmogorov
(Assistant Editor)
D. S. Korzhinskii
S. A. Lebedev
A. I. Oparin
(Editor-in-Chief)
E. N. Pavlovskii
L. I. Sedov

N. M. Strakhov

S. A. Vekshinskii

DOKLADY BIOPHYSICS

PROCEEDINGS of the ACADEMY OF SCIENCES of the USSR

A translation of DOKLADY AKADEMII NAUK SSSR

a publication of the Academy of Sciences of the USSR

© 1966 CONSULTANTS BUREAU ENTERPRISES, INC. 227 West 17th Street, New York, N. Y. 10011

Volumes 160-162

January-June, 1965

CONTENTS

	PAGE	RUSS.	RUSS.
VOLUME 160, 1965	, 402	1000 E	
Yield of Chromosome Aberrations in Relation to Radiation Dose Rate and Moisture Content			004
of Seeds-N. I. Nuzhdin and K. A. Filev	1	1	224
On the Systemic Nature of the Reaction of Biological Objects to Radiation (Analysis			
of Data Obtained for Paramecium caudatum)—G. K. Ochinskaya			
and I. B. Bychkovskaya	4	2	461
Effect of γ -Rays and Vibration on the Physicochemical Properties of Red Blood Corpuscles			
-Yu. A. Kriger and E. A. Sverdlova	7	3	713
A Comparison of the Over-All and Genetic Radiosensitivity of Two Strains of Mice			
-I. E. Vorobtsova	11	5	1187
Protein Synthesis on Polysomes - M. V. Vol'kenshtein and S. N. Fishman	15	6	1407
VOLUME 161, 1965			
Postradiation Recovery of Yeast Cells in Stationary Phase of Growth-V. S. Barsukov,	10	,	000
O. V. Malinovskii, and N. M. Mityushova	. 19	1	228
Effect of Acrylamide and its Hydrogenated Derivative on the Growth and Development			
of a Culture of Tumor and Normal Plant Tissue -S. Kh. Ismailova, Yu. P. Kozlov,			
and E. V. Burlakova	21	1	230
An Assessment of the Radioprotective Effectiveness of Mexamine-I. B. Bychkovskaya			
and A. V. Bogatyrev		3	704
The Mutagenic Effect of Ionizing Radiations on Extracellular Bacteriophage -A. S. Kriviskii		3	707
Recovery of Mitotic Activity in the Ependyma of the Cerebral Hemispheres of Rat Embryos			
after X-Irradiation—E. A. Val'shterm		4	955
The Threshold Light Intensity of Moving Point Sources-A. I. Lazarev and N. I. Pinegin.	. 33	4	958
Radiosensitivity and Nature of Radiation Injury to Cells of Mouse Thymus in Use			
-I. T. Rass		4	959
Changes in the Nucleic Acid Content of the Gonads of the Verkhovka (Leucaspius delineatus)			
due to Uranium—M. M. Telitchenko and T. I. Chistyakova	. 37	4	962
On the Nature and Role of Free Radicals in Biological Processes-A. É. Kalmanson,			
V. L. Trotsenko, V. M. Chumakov, and I. G. Kharitonenkov,	. 39	5	1212

Annual Subscription: \$50

Single Issue: \$15

Single Article: \$7.50

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau Enterprises, Inc., 227 West 17th Street, New York, N.Y. 10011, U.S.A.

CONTENTS (continued)

	PAGE	RUSS.	RUSS.
Effect of Various Doses of X-Rays on Osteogenesis in the Long Bones of the Limbs			
of Mouse Embryos-L. G. Neverova	. 43	5	1216
-V. V. Khvostova, L. V. Nevzgodina	. 46	5	1219
The Ordered Arrangement of Molecules of "Soluble" Ribonucleic Acid in Aqueous Solutions—B. K. Vainshtein and L. A. Feigin	. 49	6	1444
Effectiveness of Recovery of Mice after Irradiation by 660-MeV Protons -A. G. Konoplyannikov, Yu. B. Kudryashov, and S. P. Yarmonenko	. 53	6	1448
VOLUME 162, 1965			
Optimal Self-Regulation of Metabolic Processes in Cell. An Attempt to find the Normal Optimum of Metabolism in the Cell-G. Dechev and A. Moskona	. 57	1	201
Effect of Protectors in the Case of Exposure to Sublethal Radiation Doses —S. P. Yarmonenko, A. G. Konoplyannikov, N. N. Suvorov, and V. M. Fedoseev	. 60	1	205
Optimal Self-Regulation of Metabolic Processes in Cell. Net of Metabolic Processes as a Single Optimal System—G. Dechev and A. Moskona	. 63	2	447
Optimal Self-Regulation of Metabolic Processes in the Cell. Metabolism as a Self-Regulating System in the Presence and Absence of Feedback—G. Dechev			
and A. Moskona	. 67	3	685
V. S. Shashkov, B. L. Razgovorov, G. F. Murin, and V. S. Morozov Effect of Radioprotective Substances on the Long Afterglow of Irradiated Solutions	. 70	3	688
of Serum Albumin-I. I. Sapezhinskii and Yu. V. Silaev		3	691
A Microfluorimetric Investigation of Radiation Injury to the Macronucleus of the Infusorian Tetrahymena pyriformis—A. A.Zotikov		4	944
Lowered Resistance of Mice to the Blastomogenic Effect of Urethane after Whole-Body Exposure to Small Doses of γ -Rays-N. I. Lukash	. 79	4	947
Effect of Homogenates of Various Tissues on the Radioprotective Efficacy of Cystamine for Ehrlich's Ascites Carcinoma Cells Irradiated in Vitro—I. V. Nekrasova	. 82	4	950
Induction of Cross-Links and Local Denatured Regions in Double-Strand DNA by Ultraviolet Radiation of Various Wavelengths—A. P. Savich			
and G. B. Zavil'gel'skii · · · · · · · · · · · · · · · · · ·	. 84	4	952
and Films; Migration of Energy between them and in a Chlorophyll a + β -Carotene	00	-	1104
Complex - F. F. Litvin, B. A. Gulyaev, and V. A. Sineshchekov	. 00	5	1184
(Visual Purple) and its Alteration by Visible Light—M. A. Ostrovskii and I. B. Fedorovich	. 92	6	1412

DOKLADY AKADEMII

EDITORIAL BOARD

L. A. Artsimovich A. N. Frumkin B. A. Kazanskii A. N. Kolmogorov (Assistant Editor)

D. S. Korzhinskii S. A. Lebedev A. I. Oparin (Editor-in-Chief)

A. V. Peive L. I. Sedov N. M. Strakhov S. A. Vekshinskii

A. L. Yanshin

DOKLADY BIOPHYSICS

> PROCEEDINGS of the **ACADEMY OF SCIENCES** of the USSR

A translation of DOKLADY AKADEMII NAUK SSSR

CONSULTANTS BUREAU, A DIVISION OF PLENUM PUBLISHING © 1966 CORPORATION, 227 West 17th Street, New York, N. Y. 10011

Volumes 163-165

Annual Subscription: \$50

July-December, 1965

CONTENTS RUSS, IRUSS. PAGE ISSUE PAGE VOLUME 163, 1965 Determination of Spectral Sensitivity Curves of Light Receptors from the Addition Curves 231 -N. G. Volkov and V. K. Lyapidevskii Increase in the Radiosensitivity of the Nervous System Due to Fluoroacetate 235 -P. F. Minaev, O. F. Logvinova, A. P. Mironova, and A. I. Chukhrova 103 1 1 238 The Functional Spectral Sensitivity of the Human Visual Analyzer-V. S. Khazanov Photodynamic Action of Dyes on Ultrasonically Treated Tobacco Mosaic Virus 242 -I. E. Él'piner, A. D. Shebaldina, and F. I. Braginskaya 109 1 An X-Ray Diffraction and Electron-Microscope Investigation of T2 Phage Tail Sheaths -B. F. Poglazov, A. A. Vazina, E. M. Belavtseva, and A. I. Kitaigorodskii 112 2 488 Formation of Triplet and Radical States of Porphin and Its Derivatives-G. T. Rikhireva, 2 491 A. V. Umrikhina, L. P. Kayushin, and A. A. Krasnovskii 115 The Electrical Structure of Myocardial Tissue-M. B. Berkinblit, S. A. Kovalev, V. V. Smolyaninov, and L. M. Chailakhyan 3 741 119 Stimulating Effect of Some Doses of Ionizing Radiation on the Ovogenic Function of the Avian Ovary-S. K. Karapetyan and V. A. Vardanyan 123 3 745 Tumor Resistance of Animals Subjected to Chronic Exposure to Strontium-90 3 747 -N. I. Lukash, A. V. Gubareva, and K. B. Shimanovskaya 125 An Investigation of the Structure of Actinophage DNA by X-Ray Diffraction -T. D. Mokul'skaya, G. S. Stolyarova, and M. A. Mokul'skii 750 Free-Radical Processes in Irradiated Animal Tissue Homogenates -B. N. Tarusov, Yu. P. Kozlov, S. Urtilé, and Chou Yung-tseng 3 752 Energetics of Marine Animals-V. V. Shuleikin 133 3 754 The Effect of Temperature Reduction on the Ultraweak Radiation of Plants -A. Sh. Agaverdiev, Ya. E. Doskoch, and B. N. Tarusov 137 4 991 The Role of Dendrites in the Functioning of Nerve Cells-Yu. I. Arshavskii. M. B. Berkinblit, S. A. Kovalev, V. V. Smolyaninov, and L. M. Chailakhyan 994 Effect of Radiation on the Cell Composition of the Anterior Lobe of the Hypophysis in Relation to Its Function-A. I. Nevorotin 143 998 Differential Injury to Parental Sets of Chromosomes after Irradiation -A. A. Prokof'eva-Bel'govskaya and N. V. Pankova 1001 146 An Investigation of the Interaction of a Chlorophyll-Type Pigment with an Electron Acceptor in Heterogeneous Conditions by Measurement of Photopotentials -V. B. Evstigneev and I. G. Savkina 1270

All rights reserved. No article contained herein may be reproduced for any purpose whatsoever without permission of the publisher. Permission may be obtained from Consultants Bureau. A Division of Plenum Publishing Corporation, 227 West 17th Street, New York, N. Y. 10011, U.S.A.

Single Issue: \$15

Single Article: \$7.50

CONTENTS (continued)

	PAGE	RUSS. ISSUE	
Effect of Antibiotics on Radiation-Induced and Photodynamic Injury to Erythrocytes -Yu. A. Kriger, A. Kh. Tambiev, and L. A. Zakirov	152	5	1274
Distribution of Nucleic Acids and Change in Size of Nuclei in the Hair Cells of the Organ of Corti after Exposure to Sound-V. F. Anichin	156	6	1495
VOLUME 164, 1965 Kinetics of DNA Denaturation Due to Ultraviolet Irridation - V. M. Zhil'tsova,			
K. E. Kruglyakova, B. P. Ulanov, and L. G. Gindin	163	1	198
and Mexamine-Protected Mice-I. D. Aleksandrov	167	2	437
-É. Ya. Graevskii, M. M. Konstantinova, O. M. Sokolova, and A. G. Tarasenko Effect of Shielding of Intestine on Recovery of Hemopoiesis in Irradiated Mice	171	2	441
-M. I. Yanushevskaya	175	2	445
-É. Ya. Graevskii, I. V. Nekrasova, and A. G. Tarasenko	177	3	684
N. G. Khrapova, and N. M. Émanuel' Structural Water and Electron Transport in the Cell-A. É. Kalmanson,	179	4	934
V. M. Chumakov, and V. L. Trotsenko	182	5	182
-L. Kh. Éidus and G. K. Otarova	185	5	1171
-V. B. Dolgo-Saburov	189	6	1407
Tissues-A. M. Kuzin and N. Narbaev	191	6	1 409
VOLUME 165, 1965 Long-Range Effect of Ionizing Radiation on Chromosomes of Bone-Marrow Cells			
-N. F. Barakina and M. I. Yanushevskaya	197	2	427
with a Microbeam of α-Particles—A. A. Vainson and A. M. Kuzin The Possibility and Mechanisms of Energy Migration in Proteins—S. V. Konev,	201	4	933
V. P. Bobrovich, and E. A. Chemitskii	205	4	937
of the Oxygen Effect-V. P. Paribok and E. I. Genter Spectral Investigation of Photogalvanic Effect in Zinc Tetraphenylporphin Films	208	6	1416
on Polarized Electrodes-E. K. Putseiko	211 217	6	1419
Author Index, Volumes 160-165, 1965	217		

